

Hideo TOYOKUNI*: *Symbola gentianologica* (1)

豊国秀夫: リンドウ科植物新知見 (1)

1) *Gentiana aquatica* Linnaeus, Sp. ed. 1, 1: 229. 1753-Grossheim in Komarov, Fl. URSS 18: 579. 1952-Popov, Fl. Sr. Sib. 2: 592. 1959-Kitamura, Fl. Afghan. 303. 1960.

G. humilis Steven in Mém. Soc. Nat. Mosc. 3: 258. 1812-M. Bieberstein, Fl. Taur.-Cauc. 3: 191. 1819-Kusnezow in Acta Hort. Petrop. 15: 379. 1904- '*G. prostrata* Haenke' sensu Boissieu, Fl. Or. 4: 72. 1879-*G. pseudo-humilis* Makino in Bot. Mag. Tokyo 18: 16. 1904-Léveillé in Bull. Soc. Bot. France. 53: 650. 1906-Matsumura. Ind. Pl. Jap. 2-2: 501. 1912-Takeda in Bot. & Zool. 3: 2207, f. 75 a, b. 1935-Honda, Nom. Pl. Jap. ed. 1, 280. 1939: ed. em. 205. 1957-Hara, Enum. Spermat. Jap. 1: 133. 1949-Ohwi, Fl. Jap. ed. 1, 952. 1953-Satake in Nature. Sci. Mus. 24: 144. 1957.

Specim. exam. Japan: Prov. Shinano-Yatsugatake Mts. (Mt. Yokodake, H. Koidzumi TNS: Mt. Akadake, H. Koidzumi TNS, with no special locality, B. Hayata TI: ditto, H. Uematsu TI). Siberia (no special locality is stated, K. Jimbo TI).

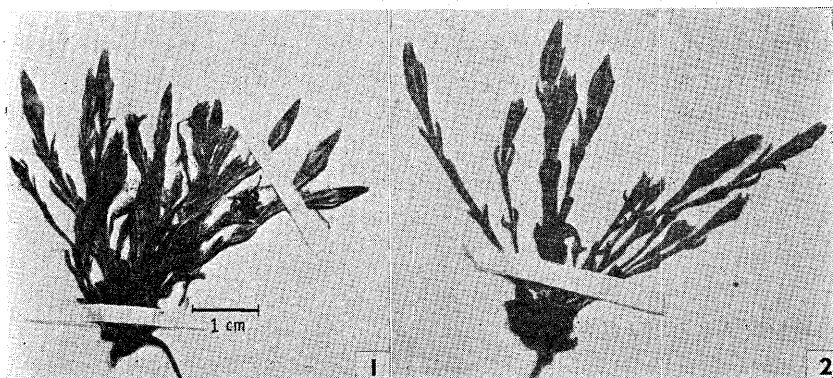


Fig. 1. *Gentiana aquatica* Linnaeus.

1. Collected in Siberia (TI) 2. Collected on Mt. Yatsugatake, Prov. Shinano, Japan (TI)

Distr. Caucasus, N. & W. Siberia, Central Asia (rare), Japan (rare), etc.

Type locality. "Habitat in Siberia". The holotype is possibly conserved in the Linnean Society of London, Great Britain (LINN).

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When Makino published *G. pseudo-humilis* in 1904, he stated "Very closely allied to *G. humilis* Stev., which have oblong-lanceolate and subconnato-vaginate cauline leaves, ovato-lanceolate calyx-teeth, ovate corolla-lobes, and lato-rounded and subentire or dentate plaits; possibly a variety of the latter species". His treatment has, as shown in synonyms, been followed by successive plant-systematists without any question.

In the Herbarium of the Botanical Institute in Tokyo (TI), however, I had the opportunity of examining a sheet of specimen of *G. aquatica* collected by K. Jimbo in Siberia as well as several sheets of specimen of *G. pseudo-humilis*. I also chanced to examine abundant material of *G. pseudo-humilis* collected by H. Koidzumi on Mt. Yatsugatake, which is now conserved in the Herbarium of the National Science Museum, Tokyo (TNS).

The results obtained from my observation have gradually led me to the conclusion that these two plants cannot be separated from each other (Fig. 1 and 2-2, 3).

In general appearance, the Japanese *G. aquatica* seems to be somewhat bigger than the Siberian one, but as the former varies a good deal in size, we need not give any taxonomic rank to it, though I thought at first it might be a variety of the latter.

Another *G. pseudo-humilis* published by Burkill in 1906¹⁾ is distributed both in the Himalayas and in Siberia, but it is quite different from our plant.

2) **Gentiana** (Chondrophylla-Annuae²⁾-Humiles³⁾) **laeviuscula** Toyokuni, sp. nov.

G. pseudo-humilis var. *laeviuscula* Ohwi, Fl. Jap. ed. 1, 952. 1953—in Bull. Nat. Sci. Mus. Tokyo **33**: 83. 1953-Honda, Nom. Pl. Jap. ed. em. 205. 1957-Satake in Nature Sci. Mus. **24**: 144. 1957.

Haec species nova cum speciebus *G. aquaticae* et *G. bellae* et *G. chosenicae* est comparanda, sed distat: a *G. aquatica*, caulibus vulgo brevioribus, corollis cylindrico-campanulatis, latoribus plicis corollae majoribus, foliis marginibus; a *G. bella*, foliis, minus scabris, corollis nec infundibularibus immaculatis lobisque corollae breviori-

1) Burkill in Journ. As. Soc. Beng., n. s. **2**: 313. 1906.

2) Sect. Chondrophylla subsect. **Annuae**, subsect. nov. *Gentiana* sect. Chondrophylla II Einjährige Kusn. in Engl. & Pr., Nat. Pfl.-fam. **4-2**: 84. 1895. Radix annua biennisve; folia radicalia plerumque rosulata. Typus: *G. thunbergii* Grisebach.

3) Series Humiles Marquand in Kew Bull. **1937**: 146 et 172.

bus; a *G. chosenica*, foliis basalibus longe majoribus, floribus pluribus, corollis nec infundibularibus colore multo gravioribus, stylo nullo.

Herbae annuae humiles toto glaberrimae, radicibus gracilibus fibrosis ad 5cm longis prope apices pauciradiculosis, caulibus erectis vel ascendentibus simplicibus

vel pauci—pluriramosis cum inflorescentiis (1-) 3-5 cm altis indistincte striatis; folia basalia rosulata obovata v. subrotundata 5-15mm longa 3-12mm lata utrinque rotundata trinervia marginibus subcartilaginea et albomarginata et minutissime scabriuscula, foliis caulinis inferioribus obovatis vel latooblonge-latis apicibus obtusiusculis sive acutiusculis, imis caulinis superioribus adpressis subulato-lanceolatis aut subulatolinaribus apicibus acute cuspidatis conduplicatis 4-9mm longis marginibus albomarginatis; flores in ramorum apicibus uni—pauci sessiles sive brevipedunculati, pedunculis usque 1mm longis, calycibus tubuloso-campaniformibus viridescentibus quinque-carinatoangularibus (2.5-) 4-8 mm longis membranaceis in parte semihyalinis 5-fidis ornatis membrana intracalycina, sepalis deltoideis 0.9-1.5 mm longis apicibus actiusculis

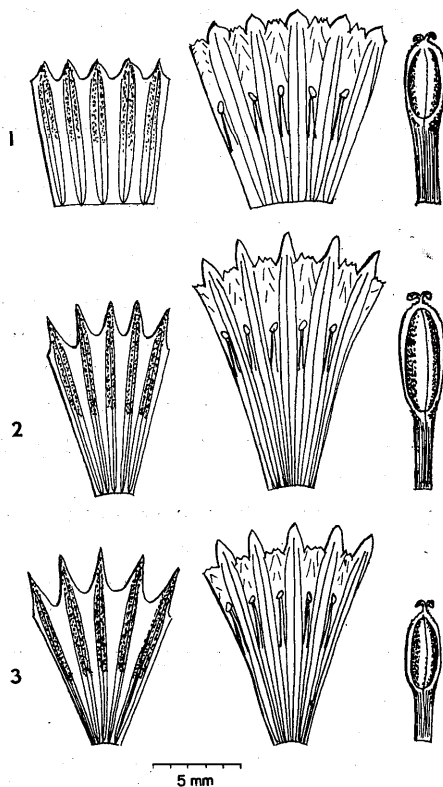


Fig. 2. Calyx (left), corolla (middle) and pistil (right) in 1, *Gentiana laeviuscula* 2, *G. aquatica* (Mt. Yatsugatake). 3, Ditto (Siberia).

saepe mucronulatis, corollis cylindrico-campanulatis caeruleo-purpureis 0.6-1.2cm longis 5-fidis, lobis corollae semicirculis apicibus minute mucronulatis, plicis corollae late truncatodeltoideis quam corollae lobi paullo minoribus apicibus irregulariter paucidentatis 0.5-1mm longis, staminibus 4-6 mm longis, filamentis lineari-subulatis, antheris anguste triangulariterque oblongis ca. 0.5 mm longis, pistillo uno capitato, stylo nullo, stigmate bipartito minimo plus minusve recurvo brevi sed lato-stipitato; capsulae longe stipitatae demum corollas superantes, seminibus fusiformibus et una

in parte striatis.

Holotype. Japan: Prov. Suruga-Mt. Senmai (H. Matsuda, 21 June, 1954 TI).

Specim. exam. Japan: Prov. Suruga-Mt. Senmai (H. Matsuda TNS & SAP-isotype); Prov. Shinano-Sampuku Pass (H. Kubota TNS-the type of *G. pseudo-humilis* var. *laeviuscula*; T. Yamazaki TI), between Mt. Toyokuchiyama and Sampuku Pass (H. Kubota TI).

Distr. Endemic (the Akaishi range in Central Japan).

By Ohwi (1953), Honda (1957), and Satake (1957) the present striking gentian has been regarded as a variety of *G. pseudo-humilis*, i. e. *G. aquatica*. It is however, a distinct species differing from *G. aquatica* in having much shorter stems, broader cylindrical-campanulate corollae, bigger plicae and more smooth leaves.

Among the specimens of the present species preserved in the Japanese herbaria, I selected Matsuda's collection of 1954 conserved in TI as the *holotypus*, because the collection is very rich in number, out of which several individuals have been distributed in a few herbaria such as TNS, SAP, etc.

The correlation between the length of corolla and that of calyx in *G. aquatica* and *G. laeviuscula* is shown in Fig. 3.

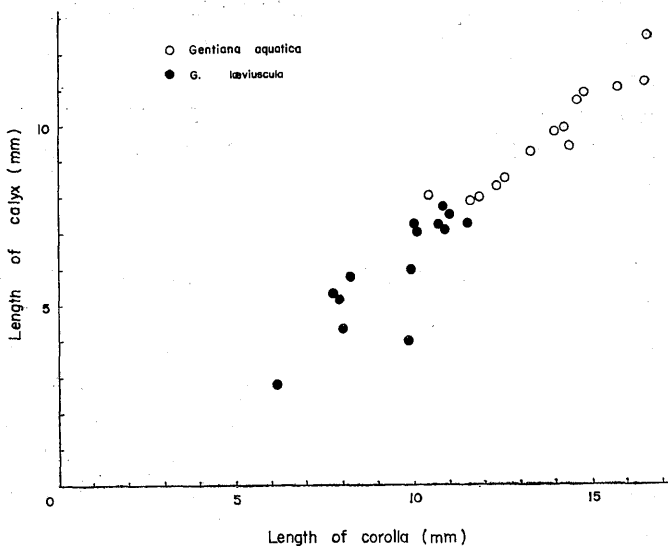


Fig. 3. Correlation between length of corolla and length of calyx in *G. aquatica* and *G. laeviuscula*.

Further details for this species are to be published in my monographic work on the Gentianaceae of Japan.

Finally, I wish to express my sincere thanks to Dr. Y. Satake, Prof. S. Kitamura, Prof. H. Hara, Dr. S. Okuyama, Dr. M. Hiroe and Dr. T. Koyama for their kind permission of using the materials respective herbaria. I am also indebted to Dr. T. Yamazaki of the University of Tokyo who sent me several samples of *G. laeviscula*. (to be continued)

○イネ科の帰化品 (久内清孝) Kiyotaka HISAUCHI: A new alien grass found in Hokkaido

昨年のことであるが、北海道雨竜郡幌加内町雨畑内にある幌加内農業高等学校の高橋務氏からイネ科の標本をいただいた。それは歐洲原産で広く米國に歸化している *Cynosurus echinatus* L. で、英名を Rough dog's tail というもので、同氏が国立科学博物館の第25回おし葉展(1961)にヒゲガヤの和名で出品されたもので、多分米國からきたものであろう。学名と和名とは大井博士が同定して与えた名であって、たしかに新歸化品であると思う。この属のものである *C. cristatus* L. は、かつて牧草として輸入され、満州公主嶺、北海道、下総などで栽培された記録があるが、本品を国内で見つけたのは始めてである。

Cynosurus cristatus was cultivated in Manchuria, Hokkaido and Shimoosa in Honshyu as fodder but it is the first time that *C. echinatus* L. is found in Japan as an alien.

○*Sherardia arvensis* L. を野外で見出した (久内清孝) Kiyotaka HISAUCHI: *Sherardia arvensis* has been found as an alien.

アカネ科のこの草は植物名彙第9巻(1916)にアカバナヤエムグラの和名をつけて収録されており、植物総覧第1版(1925)にはアカバナムグラ、ハナヤエムグラの和名を伴い、栽植品としてのせてあるけれども、同増補版や補遺には除いてある。余は本年6月千葉県習志野の旧練兵場の開こん地で飼料として栽培されているアカツメクサの畑に混生しているのを採集してから外来雑草として記録しておく。地中岸沿岸の雑草とされているが、いまでは広く分布している。

The writer has collected *Sherardia arvensis* L. as an alien in the arable-land at Narashino, Chiba pref.